

WHAT IS CLAIMED IS:

1. An item locator system having both voice activation and voice responsive capabilities for location feedback to locate one or more specific items, which comprises:

a.) a plurality of sets of different items,

each set having at least one item

therein, each set having a specified

location, and each set having its own

unique item-identifying bar code, with

at least one item of each set having

said unique item-identifying bar code

located thereon;

b.) a plurality of specified locations,

each location having at least one of

said plurality of sets of different

items located thereat, each location of
said plurality of locations having a
unique location-identifying bar code,
each of said plurality of locations
having a said unique location-
identifying bar code physically
situated thereon;

- c.) a support structure, for physically
supporting said system at one or more
locations, and functionally containing
or connected to the following
components:
 - d.) a continuous speech recognition digital
signal processor (DSP);
 - e.) a programmable microprocessor
interfaced with said speech recognition

- DSP;
- f.) sufficient programming and circuitry contained within said programmable microprocessor to provide for voice activation and voice recognition and response, and having item-identification/corresponding location-identification data pairs obtained from said unique item-identifying bar codes and said unique location-identifying bar codes, so as to provide item location information to a user;
- g.) voice input means connected to said speech recognition DSP;
- h.) memory storage means connected to said programmable microprocessor for storage

of operational inputs, control inputs,
voice recognition vocabulary for
storage of command match and execute
functions; and,

- i.) at least one user feedback unit and
connection from said programmable
microprocessor to said at least one
user feedback unit, said at least one
user feedback unit adapted to provide
feedback selected from the group
consisting of audio feedback, visual
feedback and combinations thereof, to a
user in response to an item location
query.

2. The system of claim 1 wherein said unique

item-identifying bar code is a universal price code bar code.

3. The system of claim 1 wherein said unique location-identifying bar code is a bar code which corresponds to a location selected from the group consisting of aisle, row, shelf, bin, drawer and floor space area.

4. The system of claim 1 wherein said unique location-identifying bar code is a bar code which includes code for genus data and for species data.

5. The system of claim 4 wherein said genus data is row or aisle data, and said species data is bin, drawer or shelf data.

6. The system of claim 1 wherein said programming includes software which is capable of receiving bar code reader inputs and converting same to item-identification/corresponding location-identification data pairs for location information.

7. The system of claim 1 wherein said user feedback unit includes visual display means for viewing visual feedback in the form of text, or map or a combination thereof.

8. The system of claim 1 wherein said user feedback unit includes sufficient hardware and software to provide audio feedback to a user in

response to recognizable voice input.

9. The system of claim 1 wherein said memory storage means further includes flash ROM storage and provides for remote diagnostics and system programming.

10. The system of claim 1 wherein said voice input means includes a microphone.

11. The system of claim 1 which further includes a secured manual control panel for input and management of item and location data into said system.

12. The system of claim 11 wherein said manual control panel further contains a keypad and menu

for operation and programming options, a microphone, a screen for input and feedback display.

13. The system of claim 1 which additional components further includes an audio feedback component which includes audio feedback hardware and software adapter to audibly respond to recognizable voice input, including digital-to-analog conversion and an output speaker.

14. The system of claim 1 wherein said DSP includes a continuous speech recognition engine having a continuous speech signal recognizer and a continuous speech signal interpreter.

15. The system of claim 14 wherein said

continuous speech recognition engine utilizes tokens of raw acoustic signals representing utterances or words and matches these against a set of models and then relies upon likelihood to select a most likely model to decode signals for interpretation.

16. The system of claim 1 which further includes at least one bar code reader connected to said microprocessor, and said connected is selected from being directly connected and being wirelessly connected to said microprocessor.

17. The system of claim 6 which further includes at least one bar code reader connected to said microprocessor, and said connected is

selected from being directly connected and being wirelessly connected to said microprocessor.

18. The system of claim 1 which further includes a secondary processor, said secondary processor being adapted to receive and translate bar code reader inputs thereto and having sufficient software to create item location information by matching item-identification bar code readings and corresponding location-identification bar code readings, and to communicate with said microprocessor.

19. The system of claim 18 which further includes at least one bar code reader connected to said secondary processor, and said connected

is selected from being directly connected and being wirelessly connected to said secondary processor.

20. The system of claim 18 wherein said secondary processor is adapted to convert said item location information into continuous speech recognition digital signals.